

Table 1-11: U.S. Greenhouse Gas Emissions Allocated to Economic Sectors (Tg CO₂ Eq. and Percent of Total in 2000)

Sector/Source	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Percent^a
Electricity Generation	1,898.2	1,895.8	1,915.7	1,994.8	2,022.5	2,024.3	2,096.9	2,171.6	2,256.1	2,271.2	2,376.9	33.9%
CO ₂ from Fossil Fuel Combustion	1,858.9	1,855.3	1,877.5	1,952.3	1,982.6	1,989.3	2,061.2	2,137.9	2,226.4	2,246.2	2,352.5	33.6%
Transmission & Distribution ^b	31.2	32.5	30.2	34.1	31.4	26.5	26.8	24.5	20.1	15.5	14.4	0.2%
Stationary Combustion ^c	8.1	8.0	8.1	8.4	8.5	8.5	8.9	9.2	9.5	9.5	10.0	0.1%
Transportation	1,527.7	1,495.9	1,535.1	1,568.5	1,620.8	1,652.4	1,695.2	1,708.5	1,737.4	1,813.3	1,877.0	26.8%
CO ₂ from Fossil Fuel Combustion	1,471.8	1,437.7	1,473.0	1,502.6	1,551.4	1,579.4	1,618.7	1,628.8	1,655.0	1,728.2	1,789.5	25.6%
Mobile Combustion ^c	55.8	58.1	61.3	63.4	64.8	65.2	64.8	64.2	63.6	63.1	62.7	0.9%
Substitution of ODS ^d	+	+	0.8	2.6	4.6	7.9	11.8	15.4	18.9	22.0	24.8	0.4%
Industry	1,393.9	1,349.5	1,379.1	1,357.5	1,384.9	1,400.9	1,447.6	1,442.7	1,385.9	1,341.1	1,314.6	18.8%
CO ₂ from Fossil Fuel Combustion	825.3	799.5	829.1	820.0	838.2	838.0	884.5	876.9	823.5	798.1	778.8	11.1%
Natural Gas Systems	121.2	122.7	124.5	129.0	127.3	125.7	126.6	122.7	122.2	118.6	116.4	1.7%
Iron & Steel Production	85.4	76.2	75.0	69.9	73.6	74.4	68.3	76.1	67.4	64.4	65.7	0.9%
Coal Mining	87.1	83.7	81.4	69.7	70.3	73.5	68.4	68.1	67.9	63.7	61.0	0.9%
Cement Manufacture	33.3	32.5	32.8	34.6	36.1	36.8	37.1	38.3	39.2	40.0	41.1	0.6%
HCFC-22 Production ^c	35.0	30.8	34.9	31.8	31.6	27.0	31.1	30.0	40.2	30.4	29.8	0.4%
Substitution of ODS ^d	+	+	+	0.9	3.1	11.1	15.5	18.3	20.9	23.5	26.3	0.4%
Indirect CO ₂ from CH ₄ Oxidation	30.9	30.7	30.5	29.5	29.3	29.5	28.9	28.4	28.2	27.0	26.3	0.4%
Petroleum Systems	26.4	26.8	25.9	25.0	24.6	24.2	24.0	24.0	23.4	22.3	21.9	0.3%
Nitric Acid	17.8	17.8	18.3	18.6	19.6	19.9	20.7	21.2	20.9	20.1	19.8	0.3%
Ammonia Manufacture	18.5	18.7	19.5	18.7	19.5	18.9	19.5	19.5	20.1	18.9	18.0	0.3%
Wastewater Treatment	12.0	12.2	12.6	12.8	13.3	13.7	13.8	14.2	14.3	14.6	14.8	0.2%
Landfills	14.9	14.9	15.1	15.2	15.2	15.2	14.8	14.4	14.1	14.2	14.2	0.2%
Aluminum Production ^f	24.4	22.1	20.9	19.6	17.3	17.1	18.0	16.6	14.8	14.8	13.4	0.2%
Lime Manufacture	11.2	11.0	11.4	11.6	12.1	12.8	13.5	13.7	13.9	13.5	13.3	0.2%
Limestone & Dolomite Use	5.2	5.0	4.5	4.1	5.2	7.0	7.4	8.4	8.2	9.1	9.2	0.1%
Adipic Acid	14.9	14.7	12.6	13.9	15.4	17.9	17.8	11.5	7.7	7.7	8.1	0.1%
Semiconductor Manufacture ^d	2.9	2.9	2.9	3.6	3.9	5.9	5.4	6.5	7.3	7.7	7.4	0.1%
Stationary Combustion ^c	5.9	5.8	5.9	6.0	6.2	6.3	6.5	6.7	6.6	6.8	6.7	0.1%
Natural Gas Flaring	5.5	5.6	5.1	6.5	6.6	8.7	8.2	7.6	6.3	6.7	6.1	0.1%
Soda Ash Manufacture & Consumption	4.1	4.0	4.1	4.0	4.0	4.3	4.2	4.4	4.3	4.2	4.2	0.1%
Magnesium Production & Processing ^b	5.5	5.5	5.5	5.4	5.2	5.5	5.5	6.9	6.2	6.1	4.0	0.1%
Titanium Dioxide Production	1.3	1.3	1.5	1.6	1.7	1.7	1.7	1.8	1.8	1.9	2.0	+
Ferroalloys	2.0	2.0	2.0	2.0	1.8	1.9	2.0	2.0	2.0	2.0	1.7	+
Petrochemical Production	1.2	1.2	1.3	1.4	1.5	1.5	1.6	1.6	1.6	1.7	1.7	+
Waste Combustion ^g	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.5	1.4	1.5	1.6	+
Carbon Dioxide Consumption	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.3	1.4	1.6	1.4	+
Silicon Carbide Production	+	+	+	+	+	+	+	+	+	+	+	+
Agriculture	494.7	500.8	517.0	510.4	541.4	533.3	533.3	544.2	545.1	544.9	535.5	7.6%
Agricultural Soil Management	267.1	270.1	278.0	273.0	295.1	283.4	292.6	297.5	298.4	296.3	297.6	4.3%
Enteric Fermentation	127.9	127.2	130.2	128.5	130.1	133.2	129.6	126.8	124.9	124.5	123.9	1.8%
Manure Management ^c	45.2	47.7	47.0	48.4	50.5	51.2	51.0	52.9	55.1	54.7	55.0	0.7%

CO ₂ from Fossil Fuel Combustion	46.3	47.8	52.7	52.6	56.2	56.9	52.0	58.3	57.6	59.9	50.4	0.7%
Rice Cultivation	7.1	7.0	7.9	7.0	8.2	7.6	7.0	7.5	7.9	8.3	7.5	0.1%
Agricultural Residue Burning ^c	1.1	1.0	1.2	0.9	1.3	1.0	1.2	1.2	1.2	1.2	1.2	+
Mobile Combustion ^c	+	+	+	+	+	+	+	+	+	+	+	+
Stationary Combustion ^c	+	+	+	+	+	+	+	+	+	+	+	+
Residential	484.6	495.9	507.0	528.3	519.2	522.7	549.0	531.1	494.3	516.0	531.6	7.6%
CO ₂ from Fossil Fuel Combustion	332.1	342.0	350.8	370.5	360.9	362.3	390.4	374.9	341.8	360.5	374.8	5.4%
Landfills	119.5	119.4	120.9	122.0	121.9	121.3	118.4	115.6	112.6	113.7	113.9	1.6%
Wastewater Treatment	12.3	12.4	12.6	12.7	12.9	13.1	13.2	13.4	13.5	13.7	13.9	0.2%
Waste Combustion ^g	8.1	9.0	9.3	9.8	10.2	10.6	11.1	12.1	11.5	12.4	12.7	0.2%
Human Sewage	7.0	7.2	7.3	7.5	7.7	7.7	7.8	7.9	8.1	8.4	8.5	0.1%
Stationary Combustion ^c	5.7	5.9	6.1	5.5	5.4	5.8	5.9	4.7	4.2	4.5	4.7	0.1%
Substitution of ODS ^d	+	+	+	0.3	0.2	1.9	2.1	2.5	2.7	2.9	3.2	+
Commercial	303.5	305.5	307.2	307.7	308.6	313.0	320.8	320.9	302.9	307.1	327.6	4.7%
CO ₂ from Fossil Fuel Combustion	217.3	218.8	219.5	218.1	219.7	223.9	232.8	233.7	217.5	219.8	239.3	3.4%
Landfills	79.0	78.9	79.9	80.6	80.6	80.1	78.3	76.4	74.4	75.1	75.3	1.1%
Waste Combustion ^g	5.3	5.9	6.1	6.5	6.7	7.0	7.3	8.0	7.6	8.2	8.4	0.1%
Substitution of ODS ^d	0.9	0.8	0.7	1.5	0.6	0.9	1.3	1.8	2.4	2.9	3.5	+
Stationary Combustion ^c	1.0	1.0	1.1	1.0	1.1	1.1	1.1	1.1	1.0	1.1	1.1	+
U.S. Territories	28.1	31.8	33.5	34.9	38.2	35.3	27.0	29.1	34.4	35.8	38.0	0.5%
CO ₂ from Fossil Fuel Combustion	28.1	31.8	33.5	34.9	38.2	35.3	27.0	29.1	34.4	35.8	38.0	0.5%
Total	6,130.7	6,075.2	6,194.8	6,302.2	6,435.7	6,481.8	6,669.8	6,748.1	6,756.2	6,829.5	7,001.2	100%
Sinks	(1,097.7)	(1,085.6)	(1,091.1)	(1,113.8)	(1,117.8)	(1,110.0)	(1,108.1)	(887.5)	(885.9)	(896.4)	(902.5)	100%
Forests	(982.7)	(971.7)	(976.4)	(977.5)	(984.1)	(979.0)	(979.0)	(759.0)	(751.7)	(762.7)	(770.0)	85%
Agricultural Soils	(37.3)	(36.6)	(37.8)	(61.4)	(60.7)	(60.2)	(60.2)	(60.4)	(67.2)	(67.7)	(67.4)	7%
Urban Trees	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	(58.7)	7%
Landfilled Yard Trimmings	(19.1)	(18.7)	(18.2)	(16.1)	(14.3)	(12.2)	(10.2)	(9.5)	(8.3)	(7.3)	(6.4)	1%
Net Emissions (Sources and Sinks)	5,033.0	4,989.6	5,103.6	5,188.4	5,317.9	5,371.8	5,561.7	5,860.5	5,870.3	5,933.1	6,098.7	-

Note: Includes all emissions of CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. Totals may not sum due to independent rounding.

ODS (Ozone Depleting Substances)

+ Does not exceed 0.05 Tg CO₂ Eq. or 0.05%.

- Not applicable.

^a Percents for year 2000.

^b SF₆ emitted.

^c Includes both CH₄ and N₂O.

^d May include a mixture of HFCs, PFCs, and SF₆.

^e HFC-23 emitted.

^f Includes both CO₂ and PFCs.

^g Includes both CO₂ and N₂O.